

13

Date: Thursday, 3/13/2008 1:01:20 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : OH-58 FWD X-TUBE ASSEMBLY
 Job Number : 37976
 Estimate Number : 13213
 P.O. Number :
 This Issue : 3/13/2008 S.O. No. :
 Prsht Rev. : NC Part Number : D058676101TRN
 First Issue : // Type : LANDING GEAR Drawing Number : D058-676-141 U/R
 Previous Run : Material : A2
 Written By : Due Date : 3/28/2008 Qty: 1 Um: Each
 Checked & Approved By : 08 03 13
 Comment : Est Rev: A 08-03-06 new issue DD verified by: ec

Additional Product

Job Number:



Seq. #: Machine Or Operation Description :

Machine M.O.

D6001105

Crosstube



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part number Description Batch

1 D6001-105 Crosstube B25661

a.m 08.04.21 (1)

Machine M.O.

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Fill tube with sand & install plugs on both ends as per Folio FA085

2-Turn first side as per Folio FA085

3-Deburr & Inspect for surface damage

a.m 08.04.21 (1)

Machine M.O.

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

a.m 08.04.21 (1)

Machine M.O.

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Turn second side as per Folio FA085

2-Deburr & Inspect for surface damage.

3-remove sand

a.m 08.04.21 (1)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 3/13/2008 1:01:20 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: OH-58 FWD X-TUBE ASSEMBLY

Job Number: 37976

Part Number: D058676101TRN

Job Number:



Seq: #:

Machine Or Operation:

Description:

4-Scribe part # and batch # using vibrating stylus as per Dwg D058-676-141
Inside of Cuff(Donot engrave on outside of tube)

0-m 08.04.21 ①

5.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

0-m 08.04.21 ①

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

5 08/04/22 (4)

7.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Polish entire outside surface of crosstube

W/A

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

AWM 8-4-23

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

DE 08/04/23

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and stock in kanban rack

Location:

X-TUBE CELL

AWM

8-4-23

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/04/24

Job Completion



W 08/04/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order: 37976
Description: Crosstube Assembly (OH-58 High Fwd)	Part Number: D058-676-141
Inspection Dwg: D058-676-141 Rev: A2	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

Inspection Sheet	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.240	+0.005/-0.000	2.240	✓			
	2.069	+0.005/-0.000	2.073	✓			
	2.113	+0.005/-0.000	2.116	✓			
	2.158	+0.005/-0.000	2.158	✓			
	2.183	+0.005/-0.000	2.186	✓			
	2.209	+0.005/-0.000	2.212	✓			
	2.235	+0.005/-0.000	2.235	✓			
	0.100	+/-0.010	0.100	✓			
	0.144 x 30°	+/-0.010	0.144x30°	✓			
	R0.063	+/-0.010	R0.063	✓			
	R0.500	+/-0.010	R0.500	✓			
	4.207	+/-0.001	4.207	✓			
SIDE B	2.240	+0.005/-0.000	2.240	✓			
	2.069	+0.005/-0.000	2.071	✓			
	2.113	+0.005/-0.000	2.116	✓			
	2.158	+0.005/-0.000	2.159	✓			
	2.183	+0.005/-0.000	2.187	✓			
	2.209	+0.005/-0.000	2.210	✓			
	2.235	+0.005/-0.000	2.235	✓			
	0.100	+/-0.010	0.100	✓			
	0.144 x 30°	+/-0.010	0.144x30°	✓			
	R0.063	+/-0.010	R0.063	✓			
	R0.500	+/-0.010	R0.500	✓			
	4.207	+/-0.001	4.207	✓			
	103.03	+/-0.020	103.030	✓			

Measured by: G.m	Audited by: [Signature]	Prototype Approval:	N/A
Date: 08.04.21	Date: 08/04/22	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.03.26	New Issue (P/O D058-676-101)	KJ/JLM	[Signature]



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D058-676-141	REV. A SHEET 1 OF 3
DATE 00.11.17		TITLE CROSSTUBE ASS'Y (OH-58 HIGH FWD) NTS	
A	00.11.17	NEW ISSUE	

Qty	Part Number	Description
X	D058-676-141	CROSSTUBE ASSEMBLY (OH-58 HIGH FWD)
1	D6001-105	CROSSTUBE
2	D2856-400-694	ABRASION STRIP
2	D2891-1	SUPPORT
4	MS21920-20	CLAMP

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6001-105
FINISHED LENGTH = 103.03±0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
- 9) INSTALL D2856-400-694 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D2891-1 SUPPORT, PER QSI 035.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) SEAL EDGES OF SUPPORTS AND ABRASION STRIP USING SIKAFLEX-241/291 SEALANT.
- 12) TORQUE CLAMPS 80 TO 100 IN-LB.

02.06.26
UNDER REVIEW
06.10.13 DH
Update New P.O.

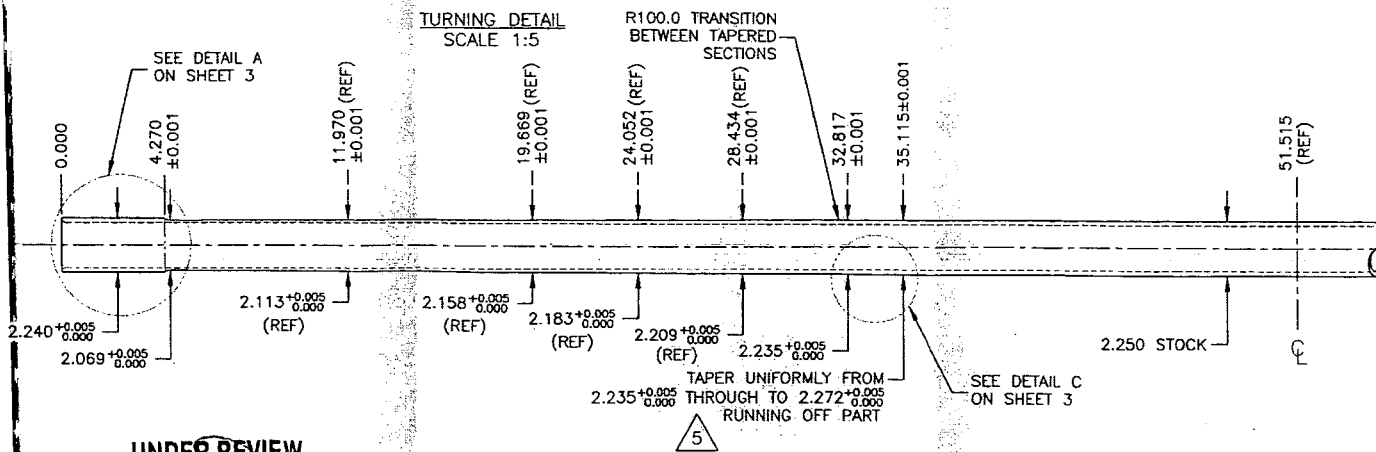
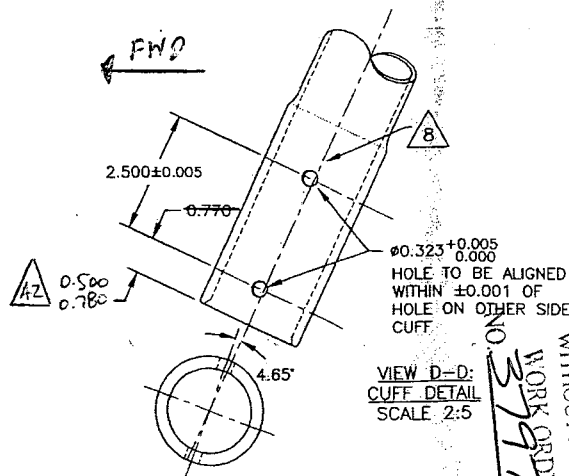
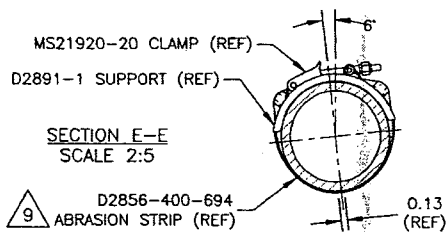
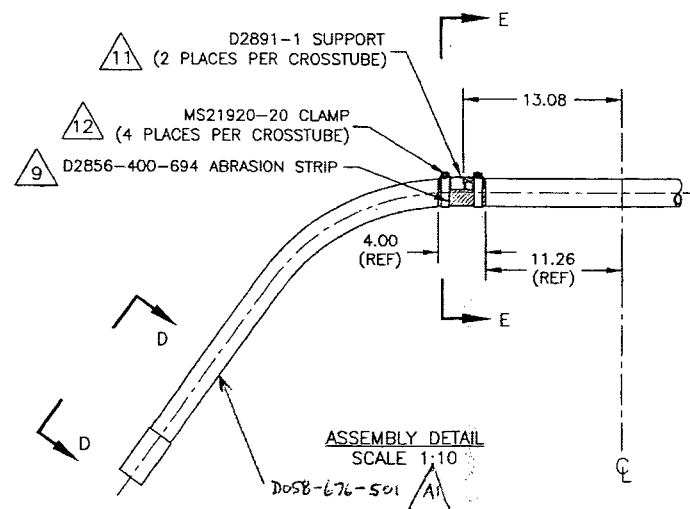
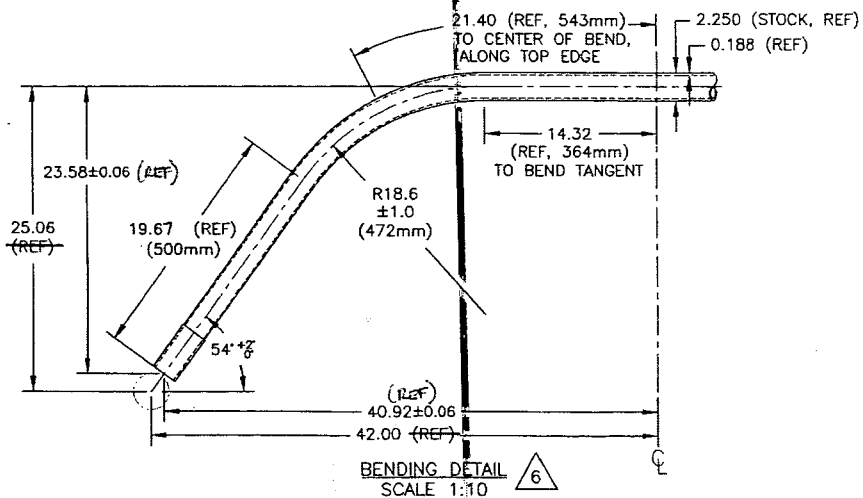
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WORK ORDER
NO. *37976*

RELEASED
00.11.24 #

A2	01.07.16	UPDATE DIM TO FIRST HOLE	<i># CP</i>
A1	01.03.07	ADD D058-676-501 P/N	<i># CP</i>

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UNDER REVIEW

06.10.04 PH
update view 0-0

GH
2.00.26

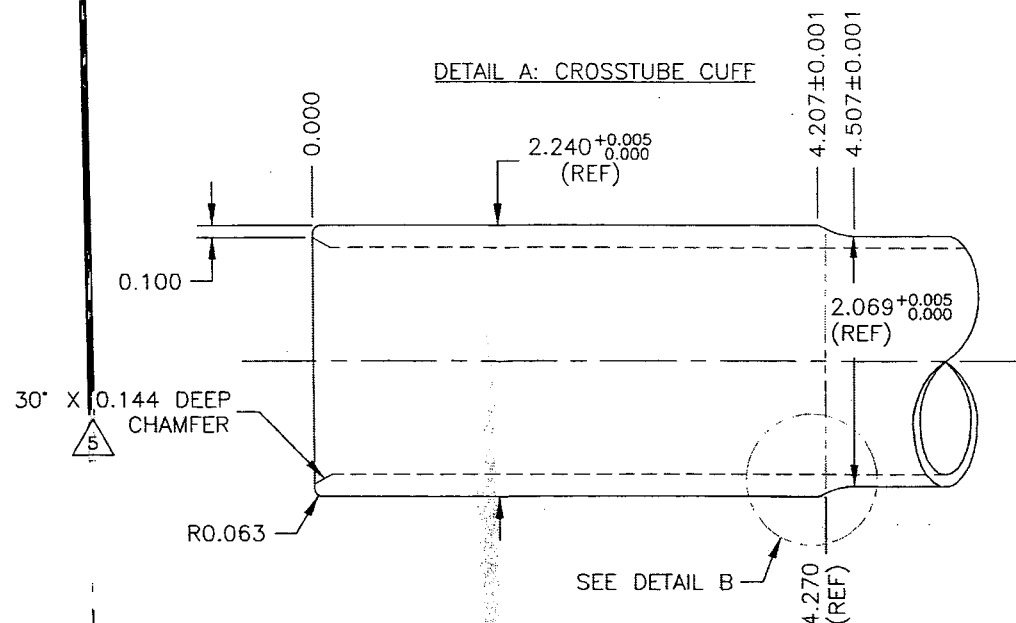
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00.11.24

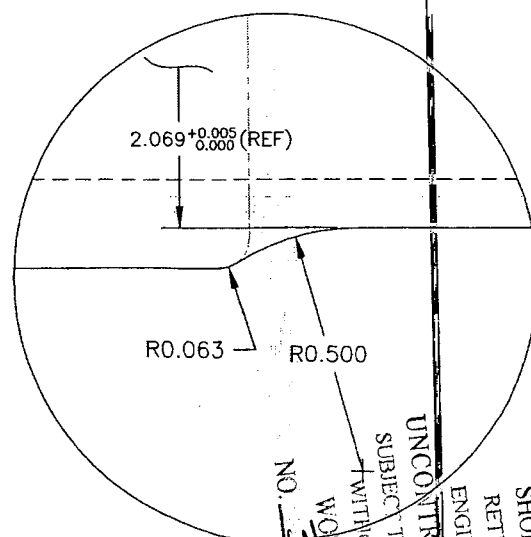
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		DATE 00.11.17	TITLE CROSSTUBE ASSEMBLY (OH-58 HIGH FWD)		SCALE 1:10

RELEASED
00.11.14

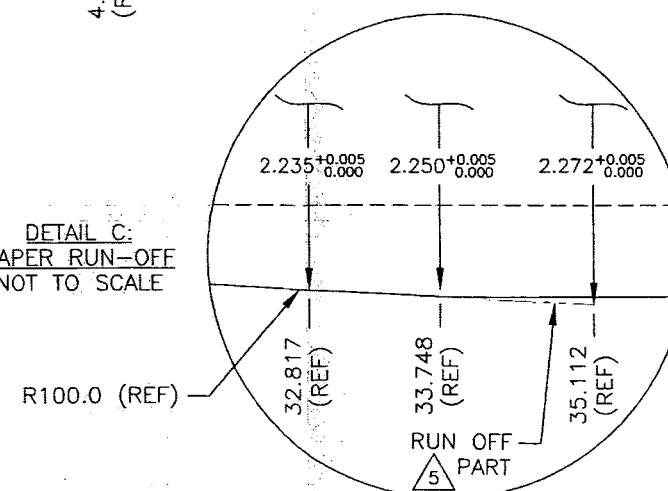
DETAIL A: CROSSTUBE CUFF



DETAIL B:
CUFF TRANSITION
SCALE 4:1



DETAIL C:
TAPER RUN-OFF
NOT TO SCALE



UNDER REVIEW

06.10.18 DH

update view 0-0

BH
02.05.06

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		DATE	00.11.17	TITLE		CROSSTUBE ASSEMBLY (ON-S2 HIGH FWP)	SCALE 1:1

1
2
3